President Message     by Bill Dowley

Two weeks ago 9 members of the Northeast Heather Society met at Lasdon Park to clear out the mostly scraggly plants which we planted 11 years ago and planted 85 healthy new plants, most coming from Paul and Jane Murphy. I would like to thank everybody who donated their time, effort, gas money and back muscles to the effort. We will do our best efforts to trim and weed the garden as best as we can as we get a year older every year.

I don’t think I am speaking out of turn but I believe everyone enjoyed the day spent getting our hands dirty while talking and laughing with our good friends of many years. I would like to propose we figure out a way for all of us to meet next summer to drink wine and enjoy the heather gardens we have planted and maintained for a number of years. Most of us are too old to prepare and plan on a large gathering of people. However, if we focus on looking at the blooming Callunas rather than trimming them - we will have plenty of time to recall some of the great times spent with those who are no longer with us.

Specifically, few of us ever get down to Fort Tryon in late July or early August to see how well our plants thrived after being trimmed in April. I would like to propose either a one day summer meeting at Lasdon Park or Ft. Tryon in 2020 to just have fun - no work.

This is a preview of the pictures of Paul Daniels’ heather garden which will be featured in the NEHS MEMBER HEATHER GARDEN section on the NEHS website. Paul lives in Ohio and he shared some thoughts about the helpful information he found on our website.

www.northeastheathersociety.org

“I learned so much about heaths and heathers in the Heather Notes archives. The articles had such a wealth of information for someone new to gardening with heathers.”
Fungal Diseases of Heather

By David Small,
NAHS Heather News,
Vol.20 No. 2 Spring 1997
Comments by Mary Matwey

It’s a cold rainy spring in Binghamton NY. According to my garden diary it has been overcast with rain and temperatures ranging from mid 40°s to mid 20°s for the better part of April through half of May. When the sun shone the temperatures may have reached into the low 60°s but those days were few and far between. My heathers were cleaned up and trimmed by early April and first impressions were that the plants had survived the winter pretty well. It is now a month later and signs of new spring growth have not appeared. What is going on? Many plants have sections of green growth and sections of brown stems which I hoped would be greening up by now. I went out in the rain yesterday and cut some stems from 3 different plants and found green tissue at the cut line. So can I assume the plants are still alive and if trimmed severely they will respond by putting out new growth? This will surely make for a very lopsided heather. Could it be that the late freeze killed parts of the plant or is it a fungal disease problem? Looking through news articles in heather publications I found an interesting and informative article by David Small titled “Fungal Diseases of Heather”, NAHS Heather News, Vol. 20 No. 2 Spring 1997. The following is portions of this article describing common fungal diseases that can effect Heather.

*********************************************************************
Phytophthora and Phytophthora

Of all the root infecting pathogens, Phytophthora is potentially the most serious. When present, it causes widespread browning and death of plants at nurseries. Thankfully however, it is not common. Pythium, on the other hand, is a very common fungus present in garden and nursery soils, compost and in ground water and water tanks. Although it grows happily on dead organic material, it is an opportunistic pathogen i.e. it can take the opportunity to attack heathers when they are under any sort of stress, however mild. These fungi attack the fine feeder roots of heathers and interfere with transport of water and nutrients to the parts above ground. If heathers are healthy, vigorous and under little stress, then Pythium will find little chance to move in and cause damage. The usual symptom is the reddening of the foliage on some stems. If the infection is severe, the whole plant will quickly succumb. Both pathogens tend to spread from one point, infecting nearby plants.

Rhizoctonia

There are many strains of this pathogen, some of which are capable of causing serious damage to heathers of all ages. Older plants become infected from the base. They turn brown at or near soil level, the bark on the lower branches becomes soft, and web-like mycelium is sometimes seen. Very often on mature plants, there is a distinctive horizontal line. Below the line all foliage is brow, above is perfectly healthy foliage. Rhizoctonia is a very common fungus and is present in garden soils. It thrives under conditions of high humidity and tends to cause more damage when plants are under stress.

Botrytis cinerea

This is one of the most damaging pathogens for both the amateur gardener and commercial grower. It grows on both dead and live material and causes most damage at the propagation stage when cuttings are being rooted in a warm, humid environment. The cutting can be seen to turn brown on affected areas, becoming covered in grey-brown spore masses. Both cuttings of Calluna and Erica species are likely to be affected and once rooted every attempt should be made to reduce the temperature and humidity level providing free air movement. Amateur gardeners may find it beneficial to drench or spray with a good garden fungicide.
The condition of the heathers in my heather garden described in “Fungal Diseases” article was also evident in the two heather gardens of the local towns that I take care of and also at the heather garden in Cutler Botanic Garden in Binghamton, NY. They were trimmed in early April but by the end of May several plants had not shown the expected appearance of healthy new growth. I decided then and there that an expert opinion supported by diagnostic investigation was required to identify the problem. On May 30th I dug up three plants, one from each garden. These were prepared and shipped to Cornell University Plant Diagnostics and Disease Clinic for testing.

***************excerpts of email correspondence with ***************
Sandra L. Jensen, Plant Disease Diagnostician
Plant Pathology and Plant-Microbe Biology Section
School of Integrative Plant Science
Cornell University, 334 Plant Science Bldg., Ithaca, NY 14853-5904 USA

**Final Report:** (Sample# 1900157, 1900158, 1900159)

The samples submitted to the Clinic for analysis each consisted of large sections of Scotch heather plants from at least two different locations. Each sample consisted of a large portion of the root system, stem and foliage tissue. The plants were noted to have been transplanted in 2017 and symptoms were observed in April 2019. A root rot pathogen was suspected.

Unfortunately, much of the root and stem tissue was already dried out in all three samples, so tissue not useful for isolation or even for serological testing. As is typical of many evergreen species however, some foliage may have remained green long after the plants were, in effect, already dead due to root death. If the root and/or woody stem tissues died the previous, foliage may have appeared green through the winter and only begun to exhibit symptoms when plants were exposed to warmer conditions in the spring. Some evidence of wood decay was already apparent in some tissue in all three samples but was most prevalent in 1900158.

Due to the condition of the tissue, there was little that we could do to try to identify a fungal pathogen. Samples were incubated in a cool moist chamber and periodically re-examined microscopically. We were able to find evidence of a Rhizoctonia sp., developing from roots of only one sample, 1900158, so that may have contributed to the decline, but as it was not found with either of the other samples that had exhibited similar decline, we still suspect abiotic issues may have been the primary cause of decline.

It was noted that the plants were not irrigated, but not whether they were mulched. If some planted were mulched or planted too deeply, prolonged rainy periods during the 2018 growing season may have kept woody stem tissue to wet for too long. If in direct contact with excessively wet soil or mulch for too long, bark of stems may be smothered and killed. As noted above, evergreen foliage supported by dead stems may be slow to turn brown and die.

Although the Clinic would not be able to test tissue to positively identify an abiotic issue, due to the advanced decline of the tissue, we also could not adequately test tissue through isolation and/or serological testing to try to rule out potential root or crown rot pathogens.

**********Additional correspondence**********

With some of the additional information that you noted yesterday, I was thinking more about the plants, and I suspect that they actually suffered what would be called “winter injury”. It is a somewhat general
term for dieback that occurs over the winter months as plant tissues suffer an excess loss of moisture that can't be replaced by an inactive root system. It would also explain the minimal fungal growth from the tissue.

There are winter conditions that may tend to promote winter dieback, and this year there seem to be a lot of evergreen type plants where tissue appears to have dried out over winter but not shown any symptoms until spring. The NYS IPM program actually put something in their on-line blog earlier this year about "winter injury". You may be able to view it at: http://blogs.cornell.edu/treeipm/. There are different factors that I think tend to set up trees and shrubs to be more likely to suffer winter injury, but the overall results for the plants are the same---varying degrees of dieback, and in some cases, entire loss of the plant.

Most of the samples that we received this year---that appeared to have suffered some type of winter injury dieback---were juniper, small spruce trees, and boxwood. In most of those cases there were some site, cultural, and/or environmental factors that may have damaged the plant roots the previous fall, causing them to go dormant under (high) moisture stress. Hard to believe with all of the rain last fall that anything could suffer from being dry, but excessively wet soil conditions can impair root function and even suffocate enough of the fine feeder roots to cause the plant to be too dry entering dormancy. From the information you had provided it did not sound likely that there was an issue with drainage or excess irrigation, but precipitation we can't do anything about, and last fall was excessively rainy for far too long.

I apologize to Sandra and to you my reader for losing a key statement from Sandra Jensen as I copied our email correspondence to Word in which she unofficially proposed that the source of the problems with the heather sent to the clinic was most likely not pathogenic but abiotic.

<table>
<thead>
<tr>
<th>NEHS OFFICERS &amp; DIRECTORS, 2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>President Bill Dowley 30196 White Hall Dr. Milton, DE 19968 (603) 903-3017 <a href="mailto:bill.dowley@gmail.com">bill.dowley@gmail.com</a></td>
</tr>
<tr>
<td>Vice-President Elly Cohen 316 Woodland Hills Rd White Plains, NY 10603 (914) 949-1286 <a href="mailto:elly0102@optonline.net">elly0102@optonline.net</a></td>
</tr>
<tr>
<td>Treasurer/Corres Sec. Peter Matwey 7 Heights Court Binghamton, NY 13905 (607) 723 1418 <a href="mailto:pmatwey@stny.rr.com">pmatwey@stny.rr.com</a></td>
</tr>
<tr>
<td>Recording Sec./Content Editor Mary Matwey 7 Heights Court Binghamton, NY 13905 (607) 723 1418 <a href="mailto:mmatwey@stny.rr.com">mmatwey@stny.rr.com</a></td>
</tr>
<tr>
<td>Director Pat Hoffman PO Box 305 Swedesboro, NJ 08085 (856) 467 4711 <a href="mailto:njgardener15@hotmail.com">njgardener15@hotmail.com</a></td>
</tr>
<tr>
<td>Director/Publishing Editor Jane Murphy 2473 Hickory Hill Rd Oxford, PA 19363 (610) 883-2171 <a href="mailto:murphy1213@zoominternet.net">murphy1213@zoominternet.net</a></td>
</tr>
<tr>
<td>Director Paul Murphy 2473 Hickory Hill Road Oxford, PA 19363 (302) 559 6052 <a href="mailto:murphy613@zoominternet.net">murphy613@zoominternet.net</a></td>
</tr>
<tr>
<td>Director Alice Schaefer 27 Waverly Avenue Newton, MA 02458 (617) 965 0546 <a href="mailto:puppetiris@verizon.net">puppetiris@verizon.net</a></td>
</tr>
<tr>
<td>Director Priscilla Williams 35 Turner Road Townsend, MA 01469 (978) 597 3005 <a href="mailto:phw@seedlingspecialist.com">phw@seedlingspecialist.com</a></td>
</tr>
<tr>
<td>Director Suzanne Barnes 9 Giles St. Binghamton, NY 13905 (607) 770 9414 <a href="mailto:scbee9@aol.com">scbee9@aol.com</a></td>
</tr>
<tr>
<td>Director Judy Doyle 19 Beckwith St Danielson, CT 06239 (860) 774-4250 <a href="mailto:jdoyle673@gmail.com">jdoyle673@gmail.com</a></td>
</tr>
<tr>
<td>Director Frank Kirk 50 Oakridge Drive Binghamton, NY 13903 607-773-0010 <a href="mailto:fkirk@stny.rr.com">fkirk@stny.rr.com</a></td>
</tr>
</tbody>
</table>

*************** end of excerpted email correspondences ***********************
Gardeners Abhor a Hole
By Mary Matwey

With the demise of many heathers at the heather gardens in Binghamton NY, the gardens took on a new look. These changes were not made on a whim just to see something different where heather had flourished in years past. The spring of 2019 revealed many dead and dying heather. As the articles called Fungal Diseases and Diagnostics report, a lot of research and site evaluations occurred before the decision to redesign the heather beds took place. The overall cause of heather demise boiled down to soil conditions, age of plants, cultural practices, and weather. To replace the heather was not an option due to cost.

The Town of Chenango installed a bench and stone path in memory of a beloved employee where an overgrown and dying shrub had been. This was the impetus to remove the dead and mis-shapened heather throughout the garden. As the empty spaces were created the new town supervisor, who is a gardener at heart, planted perennials and annuals. The water hungry annuals soon revealed a problem which had plagued the heather garden from its inception and that was a water source located over 250 feet away. This garden is a work in progress and the dozen or so healthy heathers will receive special attention to keep them that way.

With the loss of dead and struggling heather in the Town of Dickinson’s heather bed we used this opportunity to divide and reposition existing shrubs and grasses. Fortunately Cutler Botanic Garden, located close by, was having their annual plant sale and a great deal was made to purchase some nameless Hemerocallis. A few Geraniums tucked amongst the daylilies rounded out the new additions to the garden and compliment the remaining heather very well.
Advice on Heather Culture From the Editor With Firsthand Experience in Failure

I don’t presume to be an expert but I know what conditions set the heather up for problems. First let’s eliminate the weather issues which we have no control over but if good cultural practices are followed as listed below, severe weather effects can be minimized.

Prepare the soil properly with organic matter also adding a bit of Perlite and potting medium to a depth of 12 inches throughout the entire bed. You’ll notice that I do not advise adding just peat moss. Peat moss is very difficult to thoroughly mix into existing soil and if it is not, you will end up with pockets of peat moss that will be susceptible to heaving when the ground freezes plus these pockets do not absorb the moisture at the same rate as the surrounding soil. To justify my advice let me share the soil conditions of two heather beds. The first was a construction site area which had been trampled and then backfilled with the typical combo of hard pan and stones. The second is a hillside of hard pan base with a minimal, friable soil level on top. At each site in preparation of planting heather the soil was tilled up adding peat moss and then mixing in more peat to the hole where each heather was planted. This condition was adequate for the heather survival for about 5 to 6 years but as the heather root system spread out it hit solid walls of hard pan and with each passing year more and more of the plants root systems died. In both beds the dead heather was removed and the bed replanted. Fortunately the years of mulching when tilled in the second time made a more suitable soil for the heather survival but still the hard pan and Peat pockets persist.

Use fertilizer sparingly. Heather requires little food and if force fed the hairy feeder roots will suffer.

Add soil acidifier only if a soil test indicates alkaline levels over 5 ph.

When purchasing new plants resist the urge to plant them immediately. Most of the heather available to the heather gardeners (on the East Coast) has been raised in a commercial hot house. This is a mistake I have made many times. When you see the difference between the soil of a potted plant that stays compact when removed from the pot and one where the soil just falls apart revealing a small root ball you won’t be so hasty to plant your treasure too soon again.

Mulch serves two main purposes. The first is to minimize moisture evaporation and the second is to moderate the extreme changes in temperature. Of lesser importance is weed control and aesthetics. It was pointed out in the ‘Diagnostics’ article that too much mulch when coupled with too much rain can cause the bark of the stems to smoother and then those stems of the plant will die. The application of mulch should always allow a 3-4 inch ring of clear space around the base of the heather plant (do tuck some under the spreading stems). If the purpose of mulch is to prevent desiccation from winter winds and fluctuating temperatures, use chipped leaves, a cloth barrier such as burlap or other loose weave material. Some heather enthusiasts place evergreen boughs on the heather but that is often not a reliable option. If your winter weather is unpredictable in providing snow cover, you must decide. Do you want to look at heather plants which are showing their winter colors or do you want to look at a covered heather bed and know that you’ve given them a fighting chance to survive the wilds of winter.

Farewell to Hetty Francke
She was a joy to know and her enthusiasm was contagious
The condition of the plants in the 11 year old Lasdon Heather bed, (picture taken in April 2019), made the decision to create a brand new bed in honor of the late Donald Mackay clear. The new garden to be named “The Donald A. M. Mackay Memorial Heather Garden” would start fresh with new plants. The old heather would be removed and the soil amended and tilled. Just as Donald envisioned in October 2008, the heather garden at Lasdon will captivate all visitors once again.

Nine Northeast Heather Society volunteer members converged on the site September 9, 2019 and after renewing friendships and hauling in tools and equipment got down to the renovating business by 9:30 am. A few improvements would be adding a soaker hose system on a timer eliminating garden staff watering and adding a path into the garden. This will allow the favorite picture of the little ones sitting by the frog pond in the heather bed to be taken without trampling the heather. A choice boulder which I’m sure Donald stepped around many times will be adapted to display the memorial marker.

In case you can’t read the plaque it will say:

THE DONALD A.M. MACKAY MEMORIAL HEATHER GARDEN REMEMBER DONALD WHEREVER THE HEATHER BLOOMS

Continued on page 8
It was a beautiful day for planting a garden. We even had a lunch break before planting the heather, laying the soaker hoses, spreading a thick layer of mulch and watering in the heather. No one could believe that we were done by 2:30 in the afternoon.

This effort and materials was made possible by the generous donations of friends of Donald Mackay and support from the Lasdon staff. As the years go by, the memorial fund will be used to maintain Donald’s heather garden in pristine shape.
May 8th through May 10th was the typical rainy weekend we had come to expect for the spring of 2019. We’ve never let a little rain stop us before and so the scheduled trimming of The Fells and Heritage Museum and Gardens went off as planned. The heather trimming at The Fells was a very pleasant event. We were greeted by Nick Scheu, Landscape Director for The Fells’s many garden areas, and Brick Moltz, Director of Education. To beat the expected rain we started trimming early so Brick and Nick pitched in but before long several volunteers showed up to help. In general the heather looked to be in good condition which was attributed to the deep snow cover for most of the winter. It was very pleasant talking with Nick who came to The Fells with actual experience in maintaining a heather garden. He talked of expanding the knoll heather garden and I recommended the introduction of dwarf conifers and small deciduous shrubs. The soon to be completed Pavilion which overlooks the heather and rock gardens is in a choice spot for enjoying the many colorful phases of these two garden features. The Pavilion will be the site for many Fells community outdoor events and educational workshops while the Fells great house, the Hay family mansion, will be host to indoor events.

The Fells is truly “A Treasure In The Woods” and if you are not on the email or address list to receive the newsletter of scheduled events here is just a preview of what has occurred and is yet to come.

**August, September 2019:**
- Museum Day Live
- John Hay National Wildlife Refuge, Presentation and Field Workshop
- Take a child Outside Week
- Fungi Foray

**October 2019:**
- First Thursday (of the month) Hike at The Fells RETURNS
- Glacial Geology of the Lake Sunapee Region
- Diplomacy: Then and Now Hands-on Workshop, Panama Canal Treaty Simulation
- Alpines and Rock Gardens
- Diplomacy: Then and Now Lecture, Series Intergenerational Model UN Conf.
- A Murder Mystery Evening at The Fells

**November 2019:**
- From Brick Moltz, Director of Education The Fells
- **We are coming to the end of the season here but we do have one big series of events, collectively titled “Christmas at The Fells.”**
- It runs from Saturday, November 2nd - 10AM through Sunday November 10th, 3PM

To inquire or register, call 603-763-4789 x3. The Fells Historic Estate and Gardens, [www.thefells.org](http://www.thefells.org)
Help Needed for the Heritage Heathers by Mary Matwey

The heather garden at the Heritage Museum and Gardens was trimmed in early May of 2019 by Pete and Mary Matwey. This was a very disappointing visit. No NEHS volunteers came to help. At an NEHS conference on the Cape in 2006, the late Harry Bowen recommended that the heather garden at Heritage be eliminated as an NEHS supported garden because of lack of support from Heritage staff and willing NEHS volunteers to help with maintenance. Shortly after, interest in the Heritage heather garden revived when the original plants (planted 2002 and totally neglected) were found to be still alive and thriving. Since 2010 my husband and I have traveled to Sandwich MA to trim the Heritage heathers. At this juncture Pete and I can no longer travel the 300+ mile round trip to trim Heritage heathers. Unless local NEHS volunteers in the New England area accept the challenge of the once/year trim and cleanup maintenance, the Heritage Heather Garden will be removed from the NEHS supported public, Heather gardens. The trimming and cleanup date is May 2, 2020.

From the picture taken in mid-September by a friend who lives on the Cape it appears that the garden has received some attention from Heritage staff by way of weeding. The heathers do their thing by putting on a show of foliage texture and bloom color. All they need is little HELP from dedicated NEHS volunteers to trim them up in the spring. Where are the NEHS Volunteers?

HEATHER NOTES, all rights reserved, is published a minimum of twice a year by the Northeast Heather Society (NEHS), a tax-exempt organization and a chapter of the North American Heather Society (NAHS).

The purpose of the Northeast Heather Society is to foster interest in growing heathers (Calluna, Erica, Daboecia, Cassiope, Phyllodoce and Andromeda) in northeastern North America, by serving as a conduit of educational information for both the experienced and the novice gardener.

Membership in the Northeast Heather Society is open to anyone who pays dues to this chapter. Membership benefits include: an email notice that the latest Heather Notes newsletter has been uploaded to the website or you can receive a paper copy of the newsletter for a nominal fee. As a member you may participate in chapter meetings and elections, you have borrowing privileges for slide/power point presentations, and most valuable of all, contact with fellow heather gardeners who mostly live in or near your growing zone, all willing to share helpful advice and their experiences. Your membership dues will allow us to maintain a dynamic and informative website containing timely tips on Heather culture, Calendar of NEHS events, featured gardens of NEHS members and much more. A family membership permits more than one family member to vote and participate in all NEHS activities for an additional $5 per year fee above the annual dues. The family membership includes all adult household members residing at the same address and each member has one vote. If the member has opted to pay extra for a paper copy of the newsletter, only one copy of the published newsletter will be mailed to your address.

<table>
<thead>
<tr>
<th>Individual Dues</th>
<th>Family Dues</th>
</tr>
</thead>
<tbody>
<tr>
<td>$15 for 1 year</td>
<td>$20 for 1 year</td>
</tr>
<tr>
<td>$28 for 2 year</td>
<td>$33 for 2 year</td>
</tr>
<tr>
<td>$40 for 3 year</td>
<td>$45 for 3 year</td>
</tr>
</tbody>
</table>

Add $8 for each year of membership if you wish to receive a paper copy of the Heather Notes.

Make checks payable to: Northeast Heather Society
Remit payment to: Peter Matwey, Treasurer NEHS, 7 Heights Court, Binghamton, NY 13905
For digital presentations, contact Bill Dowley, Milton, DE. Tel. (603) 903-3017; wdowley@ne.rr.com

NORTHEAST HEATHER SOCIETY website: www.northeastheathersociety.org

ADVERTISING: Quarter page ad: $35 per issue; $25 per issue if advertising in two or more consecutive issues.
Contact: Pat Hoffman (856) 467-4711; njgardener15@hotmail.com

BE A CONTRIBUTOR TO HEATHER NOTES:
Do you have a suggestion, a question, a story, an anecdote, a poem, or a photo to share? Contact the Content editor:
Mary Matwey, 7 Heights Court, Binghamton, NY 13905 (607) 723 1418 mmatwey@stny.rr.com

All material may be edited for clarity and length.